30

Docket No. AUS920000946US1

## CLAIMS:

What is claimed is:

- 5 1. A keyboard apparatus comprising:
  - a fabric;
  - a plurality of switch units coupled to the fabric, wherein each switch unit within the plurality of switch units includes:
- a capsule containing an electrically responsive liquid, wherein the electrically responsive liquid causes the capsule to increase in rigidity in response to application of an electric field to the electrically responsive liquid;
- a switch coupled to the capsule, wherein a selected pressure applied to the capsule activates the switch; and a plurality of electrical conducting lines connected to the plurality of switch units.
- 20 2. The keyboard apparatus of claim 1, wherein the switch is a pizeolectric-sensative component.
  - 3. The keyboard apparatus of claim 1, wherein the electrically responsive liquid causes the capsule to
- 25 expand when an electrical field is applied to the electrically responsive liquid.
  - 4. The keyboard apparatus of claim 1, wherein the fabric is a form of an apron.
  - 5. The keyboard apparatus of claim 1, wherein the

10

30

## Docket No. AUS920000946US1

plurality of switches is coupled to the fabric by being embedded within the fabric.

- 6. The keyboard of claim 5, wherein the fabric includes5 a plurality of symbols in locations on the fabric identifying the plurality of switches.
  - 7. The keyboard apparatus of claim 1, wherein a number of the plurality of switch units have a different rigidity from others in the plurality of switch units when an electric field is applied to the electrically
- 8. The keyboard apparatus of claim 1, wherein the electrically responsive liquid is an electrorheological fluid.
  - A keyboard comprising:
    - a fabric;

responsive liquid.

- a plurality of switch units couple to the fabric, wherein each switch unit includes:
  - a sealed unit containing an electrically responsive liquid;
- a switch, wherein the electrically responsive
  liquid in each switch unit increases in viscosity in
  response application of an electric field to the
  electrically responsive liquid; and
  - a plurality of electrical conducting lines connected to the plurality of switch units and an output configured for connection to a data processing system.

## Docket No. AUS920000946US1

- 10. The keyboard of claim 9, wherein the output is a wireless transmitter.
- 11. The keyboard of claim 9, wherein the output is a universal serial bus connector.
  - 12. A data processing system comprising:
    - a bus system;
- a memory connected to the bus system, wherein a set of instructions are located in the memory;
  - a processor unit connected to the bus system, wherein the processor unit executes instructions; and
  - a keyboard connected to the bus system, wherein the keyboard is embedded in a fabric and includes:
- a plurality of switch units attached to the fabric, wherein each switch unit within the plurality of switch units includes:
- a capsule containing an electrically responsive liquid, wherein the electrically responsive liquid causes the capsule to increase in rigidity in response to application of an electric field to the electrically responsive liquid;
  - a switch coupled to the capsule, wherein a selected pressure applied to the capsule activates the switch; and
  - a plurality of electrical conducting lines connected to the plurality of switch units.
  - 13. A pointing apparatus comprising:
- 30 a fabric;

25

a switch unit coupled to the fabric, wherein the

Docket No. AUS920000946US1

switch unit:

5

10

15

a capsule containing an electrically responsive liquid, wherein the electrically responsive liquid causes the capsule to increase in rigidity in response to application of an electric field to the electrically responsive liquid;

a plurality of switches coupled to the capsule, wherein a selected pressure applied to a portion of the capsule activates one or more of the plurality of switches.

- 14. The pointing apparatus of claim 13, wherein activation of one or more of the plurality of switches generates signals to control a pointer on a display of a data processing system.
- 15. The pointing apparatus of claim 13, wherein the capsule is in shape of a rectangle.